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ABSTRACT

This concise report begins with an overview of the Accelerated Reader (AR), a learning information system designed to help teachers manage literature-based reading. It goes on to describe how AR quizzes are designed to meet three main criteria: providing an efficient, unbiased assessment of reading comprehension; motivating students to practice reading; and giving teachers good information about the reading behaviors of students, to keep students reading within their zone of proximal development (ZPD), and to keep them succeeding as readers. A six-item bibliography is attached. (SR)

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REPORT from the Institute for Academic Excellence

May 1998

How Accelerated Reader® Quizzes are Designed

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Overview

The Accelerated Reader® (AR) is a learning information system designed to help teachers manage literature-based reading. Why is this reading so vitally important? It's important for two reasons. Research tells us that large amounts of appropriate, literature-based reading instill in students a love of reading. Students who read many books within their zones of proximal development (ZPDs)—books that are neither too hard nor too easy—succeed as readers, and success creates the intrinsic motivation to read more.

At the same time, large quantities of reading boost students' critical-thinking skills. This is because students exercise the entire range of thinking skills as they construct meaning from texts.

Although the importance of large amounts of appropriate reading practice has been known, it was nearly impossible for teachers to *manage* such quantities of individualized reading until AR became available. How could a teacher know whether students comprehended what they read? How could she motivate students to read? How could she diagnose and solve problems that prevented students from succeeding?

AR quizzes were designed to help teachers address these issues—to assess reading comprehension, to motivate students to read, and to aid in diagnosis and intervention. Meeting these goals efficiently dictated that the quizzes consist of multiple-choice questions about important features of story grammar or text structure.

Assessing Reading Comprehension

AR quizzes are made up of multiple-choice questions that focus on a book's key facts and events. Although some questions measure inferential thinking skills, most assess literal comprehension. The quizzes have been designed this way for several important reasons.

The first relates to the primary purpose of the quiz, which is to answer this question: Has the student read and basically understood a specific book? The question is a fairly simple, straightforward one. The appropriate assessment device for answering it is similarly simple and straightforward. In short, the method of assessment (multiple-choice questions) aligns well with the purpose of assessment. A leading authority on student-centered classroom assessment put it this way:

> The artistry of classroom assessment requires that the teacher orchestrate a careful alignment among purposes, targets, and methods. For example, an

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> assessment of instrumental music proficiency is likely to look very different from an assessment of scientific factual recall. One relies on the assessor to listen to and subjectively judge proficiency. The other requires the administration of a set of test items that are scored correct or incorrect, yielding a score reflecting proficiency. Different targets, different assessment methods. (Stiggins, 1997, page 75.)

Second, by focusing on literal comprehension, AR quizzes are less subject to bias. If the quizzes required more higher-order thinking skills, students in whom those skills are already well developed would score higher than students who are not so advantaged. But because the quizzes primarily contain questions of literal comprehension, all students who read the book and understand it at a basic level receive the same score.

The multiple-choice format itself further reduces bias because the questions provide more assistance, or scaffolding, for weaker readers. The sequence of questions—which always matches the sequence of events in the books—similarly reduces test bias.

Finally, multiple-choice questions focusing on literal comprehension serve the purpose of AR quizzes more efficiently than open-ended questions would. Students take the quizzes quickly and therefore have more time to practice reading, which is the goal of AR.

Motivating Students to Read

Research shows us that assessments themselves can be motivational (Black, 1998). To motivate a student, the assessment instrument must meet three criteria: 1) it must provide immediate feedback; 2) it must not threaten the student's ego; and 3) it must be designed well, so that good performance results in a high score. When a quiz satisfies these criteria, it more closely resembles a game than a test.

AR quizzes meet these criteria. While some educators are surprised that students consistently say they enjoy taking AR quizzes, the positive response of students merely confirms what research has shown.

Information for Diagnosis and Intervention

We know that students must read large amounts of appropriate material to become better readers. For various reasons, though, students often do not read material within their zones of proximal development—that is, material challenging enough to promote growth but not so challenging as to be frustrating. To keep dozens of students working within their ZPDs, teachers need a great deal of information about what students are reading and how well they are reading it.

AR quizzes collect large amounts of useful information quickly, including the title, reading level, and length of each book read, and the number of questions answered correctly. Using the power of computer technology, data can be summarized for a single student or an entire class. For example, teachers can find out which students are reading too far below their reading ability, which are trying to read books that are too hard, and which aren't reading much at all. (AR provides 22 reports in all.) Objective, multiple-choice quizzes provide the kind of data that can be sorted and presented in a straightforward, informative manner to answer various diagnostic questions.

How Do We Develop an AR Quiz?

Because quizzes are so essential to AR, it is imperative that they be well designed. We use a multi-step process to ensure the highest quality.

The first step is the selection of titles. Our goal is to create a quiz for virtually every book a school is likely to have in its library. To establish priorities, we rely primarily on the recommendations of librarians and teachers.

The second step is determining whether a book should have a 5-, 10-, or 20-question quiz. This decision is based on a book's length, reading level, and complexity. Many of the quizzes of classic books are made up of 20 questions; short books written at a first- or second-grade level have 5 questions; most other quizzes have 10 questions.

Next, the book is assigned to an experienced *quiz* writer. (*Quiz* writers usually have a bachelor's or master's degree in Language Arts or education.) He or she follows a specialized procedure that guides the selection of questions and distractors (incorrect answers). *Quiz* writers watch videos based on books before *quizzes* are written to make it less likely that *quizzes* can be passed by watching a movie rather than reading the book. After a *quiz* is drafted, it is given to a *quiz* reader, who reads the book and takes the *quiz*.

After that, the *quiz* is reviewed by the *quiz* editor and, finally, the *quiz* supervisor.

Conclusion

On the surface, the AR *quiz* looks like a very simple thing: a series of multiple-choice questions on the content of a book. It is, however, an assessment tool that is carefully designed to meet multiple criteria. It must provide an efficient, unbiased assessment of comprehension; it must motivate students to practice reading; and it must give teachers good information about the reading behaviors of students, so that they can keep students reading within their ZPD—and succeeding as readers. The carefully designed and constructed AR *quiz* is key to the Accelerated Reader's success.

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For more information, or for additional copies of this report, write or call:

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